Data Extraction Form

Survey Flow

Standard: Article id & designs (6 Questions)

Branch: New Branch
     If
          If predict. Does it contain a prediction model analysis? (leave blank if no) Yes Is Selected

> **EndSurvey:**

Standard: Reporting quality - not STROBE (10 Questions)
Standard: STROBE (21 Questions)
Standard: Block 4 (4 Questions)

Branch: New Branch
     If
          If initials. Select your initials KD Is Selected

Standard: Block 3 (5 Questions)

Page Break ——————————————————————

Q1 **Before you start**

1) Open the CSV file containing the references https://osf.io/9w72e/
2) find the online version of the relevant article
3) Skim read the article and it's supplementary material (5 mins max)
4) Answer the questions below.

The first word of all questions is the question's name or number e.g. "initials. Select your initials"

The text boxes are for copy and pasted text from the article and/or your own comments . To ensure your comments can be distinguished from copy and pasted text all copy and pasted text must be in quotes, unless otherwise stated.

If you cannot find the article or it's supplementary material exit this window and email Katie

Q2 article_id. Copy and paste in the article ID from the csv file (do not put in quotes)

_____

Q3
title. Copy and paste the article's title from the online version of the article (do not put in quotes)

_____

X→

Q4 initials. Select your initials

○ KD (1)

○ MG (2)

○ RR (3)

○ BW (4)

X→

Q5 designs. Indicate what the article's designs are from the CSV file.

☐   Cohort (1)

☐   Cross-sectional (2)

☐   Case-control (3)

Q6 predict. Does the article contain a prediction model analysis? (leave blank if no)

☐   Yes (1)

End of Block: Article id & designs

Start of Block: Reporting quality - not STROBE

X→ X→

Q7 strobe. Did the authors state that they followed STROBE? (Search article & relevant supplementary material for all these terms: **'report' | 'guideline' | 'checklist' | 'STROBE' | 'followed' | 'equator'| 'Elm'**)

○ Yes - the authors state that they followed the STROBE guidelines (1)

○ No - the authors state they did not use STROBE or any reporting guidelines (2)

○ NI -the authors made no statement regarding their use of reporting guidelines (3)

○ Other reporting guidelines used - they state they used reporting guidelines other than STROBE. (please specify which reporting guidelines they said they used) (4)
_____

Q8 strobe_ev. Copy and paste in the authors statement regarding their use of reporting guidelines

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X→

Q9 strobe_cite. If the authors do follow STROBE or other reporting guidelines do they cite these guidelines?

○ Yes (1)

○ No (2)

X→ X→
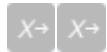
Q10 reg. Do the authors state that the studies contained in the article were registered? (Search article & relevant supplementary material for all these terms: '**regist' | 'protocol'** | '**plan' | 'publis'. Registrations do not include UK Biobank applications** which may be referred to as protocols or registrations.)

○ Yes - before data analysis (1)

○ Yes - after data analysis (2)

○ Yes - don't state when (3)

○ No - state that the studies were not registered (4)

○ NI - no statement regarding registration (5)

Q11 reg_id. Copy and paste in the registration's reference number, DOI or other identifier (leave blank if none provided)

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Q12 reg_ev. Copy and paste in the authors' statement regarding registration

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X→

Q13 var_id. Do the authors reference the UK Biobank ID numbers for all the variables?
(Examine any very large numbers found in the methods, results and all supplementary material)

○ Always (1)

○ Most of the time (2)

○ About half the time (3)

○ Sometimes (4)

○ Never (5)

X→ X→

Q14 ukb_credit. Do the authors state that "This research has been conducted using the UK Biobank Resource."? (Search article & relevant supplementary material for all these terms: **'UK' | 'Resource'**)

○ Yes - exact wording (i.e. "This research has been conducted using the UK Biobank Resource.") (1)

○ Yes - almost exact wording (e.g. "This work was conducted with the UK Biobank Resource", "We conducted this research using the UK Biobank Resource", "This work used the UKB Resource", "This work was conducted using the UK Biobank") (2)

○ No - the authors mention they the UK Biobank but do not give the recommended credit (e.g. our sample included 100,000 participants from the UK Biobank) (3)

Q15 ukb_credit_ev. Copy and paste the author's reference to the UK Biobank (if there are multiple references copy and paste the one that closest resembles "This research has been conducted using the UK Biobank Resource.")

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X→

Q16 code. Do the authors provide their code for their analyses of the UK BIobank? (Search the article and supplementary material for **"code" | "availab" | "http"| "www" | "figshare" | "github" | "zenodo"**)

○ Yes (1)

○ No (2)

Q17 **STROBE STATEMENT INSTRUCTIONS**

The following questions are adapted from the STROBE checklist. As done by Rao et al. (2016) the 22 item checklist was divided up into its sub-items.

Instructions
  1) Open the STROBE Explanation and Elaboration article https://doi.org/10.1371/journal.pmed.0040297

 2) Answer the questions below using the responses 'Yes', 'No', 'Partially', 'NA', 'Yes-External', 'Partially-External' or 'Unsure'.

Yes = all of the information was present.

No = this information was relevant but none of it was present
Partially = some of the information was present
NA = this information was not relevant to any of the studies in the article
Partially-External = some of the information was present **and/or** the authors report that additional information can be found in an external source (i.e. not in the article or supplementary material)
Unsure = I am unsure what to respond

3) If applicable give evidence for your responses in the textboxes provided.

If 'Yes' - copy and paste the evidence for your answer into the textbox.
If 'Partially', 'Partially-External' - copy and paste the evidence into the textbox and describe what information is missing.

If 'NA' - explain why you think the information is not relevant. (E.g. Sensitivity analyses not used, grouping not used, not matched)
If 'No' - you can leave textbox blank or add your comments.
If 'Unsure' - explain why you are unsure

All text copy and pasted from the article must be in quotes. Your comments should be unquoted.

Only 'No' responses can have blank textboxes

If copying and pasting evidence is difficult (e.g. evidence is in a table or figure) provide the location or label of the evidence. (E.g. supp 3, page 1 or Supplementary Table 1 or Figure 2)

If you wish to use the same evidence for multiple questions just copy and paste from the previous textbox

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X→

Q18   Indicate if the authors report the following items for all the studies in the article (unless a study design is specified)

1a. Indicate the study's design as cross-sectional, cohort or case-control in the title or the abstract (84)	▼ Yes (22) ... Unsure (30)
1b_i. Provide in the abstract an informative and balanced summary of what was done (85)	▼ Yes (22) ... Unsure (30)
1b_ii. Provide in the abstract an informative and balanced summary of what was found (86)	▼ Yes (22) ... Unsure (30)
2_i. Explain the scientific background for the investigation being reported (8)	▼ Yes (22) ... Unsure (30)
2_ii. Explain the rationale for the investigation being reported (81)	▼ Yes (22) ... Unsure (30)
3. State specific objectives, including any prespecified hypotheses (11)	▼ Yes (22) ... Unsure (30)
4. Present key elements of study design early in the paper (12)	▼ Yes (22) ... Unsure (30)
5_i. Describe the setting (72)	▼ Yes (22) ... Unsure (30)
5_ii. Describe the locations (14)	▼ Yes (22) ... Unsure (30)
5_iii. Describe the relevant dates including periods of recruitment (73)	▼ Yes (22) ... Unsure (30)
5_iv. Describe the relevant dates including periods of exposure (74)	▼ Yes (22) ... Unsure (30)
5_v. Describe the relevant dates including periods of follow-up (75)	▼ Yes (22) ... Unsure (30)
5_vi. Describe the relevant dates including periods of data collection (76)	▼ Yes (22) ... Unsure (30)

X→

Q19 Indicate if the authors report the following items for all the cross-sectional and cohort studies in the article

6a_i_coh_cs. Cross-sectional and cohort studies - Give the eligibility criteria (17)	▼ Yes (2) ... Unsure (20)
6a_ii_coh_cs. Cross-sectional and cohort studies - Give the sources of participants (86)	▼ Yes (2) ... Unsure (20)
6a_iii_coh_cs. Cross-sectional and cohort studies - Give the methods of selection of participants (87)	▼ Yes (2) ... Unsure (20)

X→

Q20 Indicate if the authors report the following items for all the cohort studies in the article

6a_iv_coh. Cohort study - Describe methods of follow-up (88)	▼ Yes (2) ... Unsure (20)

X→

Q21 Indicate if the authors report the following items **for all the cohort studies in the article**

6b_i_coh. Cohort study - For matched studies, give matching criteria (20)	▼ Yes (2) ... Unsure (20)
6b_ii_coh. Cohort study - For matched studies, give number of exposed and unexposed (94)	▼ Yes (2) ... Unsure (20)

X→

Q22 Indicate if the authors report the following items **for all the case-control studies in the article**

6a_i_cc. Case-control study - Give the eligibility criteria (18)	▼ Yes (2) ... Unsure (21)
6a_ii_cc. Case-control study - Give the sources of case ascertainment and control selection (89)	▼ Yes (2) ... Unsure (21)
6a_iii_cc. Case-control study - Give the methods of case ascertainment and control selection. (90)	▼ Yes (2) ... Unsure (21)
6a_iv_cc. Case-control study - Give the rationale for the choice of cases and controls (91)	▼ Yes (2) ... Unsure (21)

X→

Q23 Indicate if the authors report the following items **for all the case-control studies in the article**

6b_i_cc. Case-control study - For matched studies, give matching criteria (21)	▼ Yes (2) ... Unsure (22)
6b_ii_cc. Case-control study - For matched studies, give the number of controls per case (95)	▼ Yes (2) ... Unsure (22)

X→

Q24 Indicate if the authors report the following items for all the studies in the article (unless a study design is specified)

7_i. Clearly define all outcomes (24)	▼ Yes (2) ... Unsure (20)
7_ii. Clearly define all exposures (86)	▼ Yes (2) ... Unsure (20)
7_iii. Clearly define all predictors (137)	▼ Yes (2) ... Unsure (20)
7_iv. Clearly define all potential confounders (138)	▼ Yes (2) ... Unsure (20)
7_v. Clearly define all effect modifiers (139)	▼ Yes (2) ... Unsure (20)
7_vi. Give diagnostic criteria, if applicable (140)	▼ Yes (2) ... Unsure (20)

X→

Q25 _

8starred_i. For each variable of interest, give sources of data (137)	▼ Yes (2) ... Unsure (24)
Display This Choice: *If designs. Indicate what the article's designs are from the CSV file. = Case-control* 8_star_i_cc. Case-control studies - give the information separately for cases and controls (101)	▼ Yes (2) ... Unsure (24)
Display This Choice: *If designs. Indicate what the article's designs are from the CSV file. = Cross-sectional* *Or designs. Indicate what the article's designs are from the CSV file. = Cohort* 8_star_i_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (102)	▼ Yes (2) ... Unsure (24)

X→

Q26 _

8starred_ii. For each variable of interest, give details of methods of assessment (measurement) (93)	▼ Yes (2) ... Unsure (24)

8_star_ii_cc. Case-control studies - give the information separately for cases and controls (105)	▼ Yes (2) ... Unsure (24)

8_star_ii_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (106)	▼ Yes (2) ... Unsure (24)

X→

Q27 _

8starred_iii. Describe comparability of assessment methods if there is more than one group (95)	▼ Yes (2) ... Unsure (24)

8_star_iii_cc. Case-control studies - give the information separately for cases and controls (107)	▼ Yes (2) ... Unsure (24)

8_star_iii_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (108)	▼ Yes (2) ... Unsure (24)

X→

Q28 _

9. Describe any efforts to address potential sources of bias (this does not include any adjustment for confounders) (6)	▼ Yes (1) ... Unsure (6)
10. Explain how the study size was arrived at (1)	▼ Yes (1) ... Unsure (6)
11_i. Explain how quantitative variables were handled in the analyses (7)	▼ Yes (1) ... Unsure (6)
11_ii. If applicable, describe which groupings were chosen (8)	▼ Yes (1) ... Unsure (6)
11_iii. If applicable, describe why groupings were chosen (9)	▼ Yes (1) ... Unsure (6)
12a. Describe all statistical methods, including those used to control for confounding (10)	▼ Yes (1) ... Unsure (6)
12b_i. Describe any methods used to examine subgroups (11)	▼ Yes (1) ... Unsure (6)
12b_ii. Describe any methods used to examine interactions (12)	▼ Yes (1) ... Unsure (6)
12c. Explain how missing data were addressed (13)	▼ Yes (1) ... Unsure (6)

X→

Q29 _

Display This Choice:

If designs. Indicate what the article's designs are from the CSV file. = Cohort

Display This Choice: If designs. Indicate what the article's designs are from the CSV file. = Cohort 12d_coh. Cohort study - If applicable, explain how loss to follow-up was addressed (110)	▼ Yes (2) ... Unsure (23)

X→

Q30 _

12d_cc. Case-control study-If applicable, explain how matching of cases and controls was addressed (111)

▼ Yes (2) ... Unsure (23)

X→

Q31 _

12d_cs. Cross-sectional study-If applicable, describe analytical methods taking account of sampling strategy (112)

▼ Yes (2) ... Unsure (23)

X→

Q32 _

12e. Describe any sensitivity analyses (140)	▼ Yes (2) ... Unsure (16)
13starreda. Report numbers of individuals at each stage of the present study-eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study,	▼ Yes (2) ... Unsure (16)

completing follow-up, and analysed (114)

13_star_a_cc. Case-control studies - give the information separately for cases and controls (115)

▼ Yes (2) ... Unsure (16)

13_star_a_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (120)

▼ Yes (2) ... Unsure (16)

13starredb. Give reasons for non-participation at each stage of the present study (121)

▼ Yes (2) ... Unsure (16)

13_star_b_cc. Case-control studies - give the information separately for cases and controls (122)

▼ Yes (2) ... Unsure (16)

13_star_b_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (123)

▼ Yes (2) ... Unsure (16)

13starredc. Use a flow diagram if appropriate (124)

▼ Yes (2) ... Unsure (16)

13_star_c_cc. Case-control studies - give the information separately for cases and controls (125)

▼ Yes (2) ... Unsure (16)

▼ Yes (2) ... Unsure (16)

13_star_c_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (126)

14starreda_i. Give characteristics of study participants (eg demographic, clinical, social) (127)

▼ Yes (2) ... Unsure (16)

▼ Yes (2) ... Unsure (16)

14_star_a_i_cc. Case-control studies - give the information separately for cases and controls (128)

▼ Yes (2) ... Unsure (16)

14_star_a_i_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (129)

14starreda_ii. Give information on exposures and potential confounders (137)

▼ Yes (2) ... Unsure (16)

▼ Yes (2) ... Unsure (16)

14_star_a_ii_cc. Case-control studies - give the information separately for cases and controls (138)

▼ Yes (2) ... Unsure (16)

14_star_a_ii_coh_cs. Cohort and cross-

sectional studies - give the information separately for exposed and unexposed groups (139)

14starredb. Indicate number of participants with missing data for each variable of interest (130)

▼ Yes (2) ... Unsure (16)

Display This Choice:

If designs. Indicate what the article's designs are from the CSV file. = Case-control

▼ Yes (2) ... Unsure (16)

14_star_b_cc. Case-control studies - give the information separately for cases and controls (131)

Display This Choice:

If designs. Indicate what the article's designs are from the CSV file. = Cohort

Or designs. Indicate what the article's designs are from the CSV file. = Cross-sectional

▼ Yes (2) ... Unsure (16)

14_star_b_coh_cs. Cohort and cross-sectional studies - give the information separately for exposed and unexposed groups (132)

Display This Question:

If designs. Indicate what the article's designs are from the CSV file. = Cohort

X→

Q33 Indicate if the authors report the following items for all the cohort studies in the article

14starredc_coh. Cohort study - Summarise follow-up time (eg, average and total amount) (51)	▼ Yes (2) ... Unsure (18)
14_star_c_coh. Cohort studies - give the information separately for exposed and unexposed groups (94)	▼ Yes (2) ... Unsure (18)
15starred_coh. Cohort study-Report numbers of outcome events or summary measures over time (52)	▼ Yes (2) ... Unsure (18)
15_star_coh. Cohort studies - give the information separately for exposed and unexposed groups (96)	▼ Yes (2) ... Unsure (18)

X→

Q34 Indicate if the authors report the following items for all the case-control studies in the article

15starred_cc. Case-control study-Report numbers in each exposure category, or summary measures of exposure (53)	▼ Yes (2) ... Unsure (21)
15_star_cc. Case-control studies - give the information separately for cases and controls (98)	▼ Yes (2) ... Unsure (21)

X→

Q35 Indicate if the authors report the following items for all the cross-sectional studies in the article

15starred_cs. Cross-sectional study-Report numbers of outcome events or summary measures (54)	▼ Yes (2) ... Unsure (21)
15_star_cs. Cross-sectional studies - give the information separately for exposed and unexposed groups (98)	▼ Yes (2) ... Unsure (21)

X→

Q36 Indicate if the authors report the following items for all the studies in the article (unless a study design is specified)

16a_i. Give unadjusted estimates (116)	▼ Yes (2) ... Unsure (20)
16a_ii. If applicable, give confounder-adjusted estimates (125)	▼ Yes (2) ... Unsure (20)
16a_iii. If applicable, give the confounder-adjusted estimates' precision (eg, 95% confidence interval) (126)	▼ Yes (2) ... Unsure (20)
16a_iv. Make clear which confounders were adjusted for (117)	▼ Yes (2) ... Unsure (20)
16a_v. Make clear why confounders were included (118)	▼ Yes (2) ... Unsure (20)
16b. Report category boundaries when continuous variables were categorized (119)	▼ Yes (2) ... Unsure (20)
16c. If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period (120)	▼ Yes (2) ... Unsure (20)
17_i. Report analyses of subgroups (121)	▼ Yes (2) ... Unsure (20)
17_ii. Report analyses interactions (122)	▼ Yes (2) ... Unsure (20)
17_iii. Report sensitivity analyses (123)	▼ Yes (2) ... Unsure (20)
17_iv. Report other analyses done (124)	▼ Yes (2) ... Unsure (20)
18. Summarise key results with reference to study objectives (100)	▼ Yes (2) ... Unsure (20)
19_i. Discuss limitations of the study, taking into account sources of potential bias or imprecision (101)	▼ Yes (2) ... Unsure (20)
19_ii. Discuss both direction and magnitude of any potential bias (110)	▼ Yes (2) ... Unsure (20)
20. Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence (102)	▼ Yes (2) ... Unsure (20)
21. Discuss the generalisability (external validity) of the study results (103)	▼ Yes (2) ... Unsure (20)
22_i. Give the source of funding for the present study (105)	▼ Yes (2) ... Unsure (20)
22_ii. Give the the role of the funders for the present study (111)	▼ Yes (2) ... Unsure (20)

22_iii. If applicable, give the source of funding for the original study on which the present article is based (115) | ▼ Yes (2) ... Unsure (20)

22_iv. If applicable, give the the role of the funders for the original study on which the present article is based (114) | ▼ Yes (2) ... Unsure (20)

Q37 comments.

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End of Block: STROBE

Start of Block: Block 4

Q45 exposure. Do the authors state what their exposures are? (Search article & relevant supplementary material for this term: 'exposure' | 'risk factor' | 'determinant' | '**independent**' | 'explanatory')

○ Yes (1)

○ No (2)

○ NA (3)

○ Unsure (6)

Q46
exposure_ev. If applicable give evidence for your response to the question above

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Q47 outcome. Do the authors state what their outcomes are? (Search article & relevant supplementary material for this term: 'outcome' | 'dependent' | 'endpoint')

○ Yes (1)

○ No (2)

○ NA (3)

○ Unsure (4)

Q48 outcome_ev. If applicable give evidence for your response to the question above

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End of Block: Block 4

Start of Block: Block 3

Q38 email. Corresponding author's email (Search article for 'corresponding', '@')

_____

Q39 country. Extract country from corresponding author's affiliations

_____

Q40 ukb_app. UK Biobank application number (Search article for all these terms: 'application' , 'approv' , 'number' , 'Resource'. If not found examine any strings of numbers in article)

_____

Q41 keywords. Author keywords (Extract from page 1. If not on page 1 search article for 'keywords')

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Q42 coi. Conflict of interest statement (Search article material for all these   terms: 'competing', 'interest' ,'conflict' , 'disclosure'

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